

## SOME NEW EUROPEAN LICHENS

by

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Die unten beschriebenen neuen Arten wurden vom Unterzeichneten, der Herrn Dr. A.H. MAGNUSSON für die Bearbeitung dieser und vieler anderer Flechten auch an dieser Stelle bestens danken möchte, auf verschiedenen Fahrten im Alpengebiet sowie in Spanien gesammelt. Die beiden vom Vintschgau (Südtirol) angegebenen Arten entstammen der reichen Ausbeute einer zusammen mit A. SCHRÖPPEL (Pfronten) unternommenen Exkursion. Sie wuchsen an den sehr heißen unddürren Südhangen bei Schlanders kurz über dem Talboden in nächster Nachbarschaft von *Acarospora sulphurata* und *heufleriana*, *Rinodina oreina*, *Caloplaca ru=belliana* und anderen xerischen, mediterranen wie auch alpinen Sippen.

Die Typen befinden sich in der Botanischen Staats=sammlung München.

J. POELT

### *Acarospora alboatra* H.Magn., spec.nov.

Thallus crustaceus, rimoso-areolatus, caesio-albescens, areolis subcontiguis, planis late affixis, rugulosis, I -, KOH -, CaCl -. Apothecia in quavis areola saepius singula, immersa, primum punctiformia, dein dilatata, disco atro haud prominente. Excipulum laterale tenue, superne valde incrassatum. Thecium altum, superne fulvum, parapnysibus crassiusculis. Sporae numerosae, maiusculae, ellipsoideae.

Italy, Southern Tyrol: "Vintschgau, Trockenhänge am Eingange des Schlandersautales bei Schlanders, 1953 leg. J. POELT (Typus in Herb. München). On slaty calcareous rock.

Thallus probably covering a large area, areolae 0,5 - 0,9 mm wide, about 0,3 mm thick, uniform, contiguous and angular or ± discrete and rounded, densely white pruincse but moistened brown, underside pale. - Thallus cortex 25  $\mu$  thick, upper 6-9  $\mu$  red-brown with 10 - 35  $\mu$  thick amorphous stratum, CaCl -, cells 3 - 3,5  $\mu$  large, distinct. Algal stratum 100  $\mu$  thick or more, very dense, continuous. Medulla poorly developed.

Apothecia, when fully developed, to 0,5 mm broad, disc on a level with the thallus, deep black. Exciple at the very edge 70 - 100  $\mu$  thick, colourless, laterally

about 15  $\mu$ , at centre often conical, I + blue. Hypothecium 35 - 50  $\mu$ , greyish. Thecium 120 - 150  $\mu$  high, I + dark green-blue; upper 7 - 9  $\mu$  fulvous. Paraphyses in water 2,5 - 3  $\mu$  thick, tips hardly swollen in KOH, brown-pale. Ascii 100 - 125 x 25  $\mu$ , apex wall about 9  $\mu$  thick. Spores 100 - 200, 7-9 x 3,5  $\mu$ , in KOH 5-7 x 3  $\mu$ .

The new species belongs to the A. cervina - group but has a higher thecium and larger spores. The little known A. algerica is described with a still taller thecium and confluent apothecia where, however, no spores have been found.

Acarospora hispanica H. Magn., spec.nov.

Thallus areolatus, pallide castaneus, effusus, areolae crassiusculae, appianatae, rotundatae vel saepius incisae, contiguae vel subdispersae, nitidiusculae, subtus obscuratae. Cortex superior crassiusculus, nubilatus, CaCl + rubescens. Apothecia pauca, in areolis solitaria, immersa, demum areolam expletia, latiora, plana, fuscocrocea, tenuiter marginata. Thecium subalatum, paraphysibus contiguis. Sporae numerosae, ellipsoideae.

Spain: "Bei Bailén (100 km östlich Cordoba, Andalusien), am Südrand der Sierra Morena", 1953 leg. J. POELT (Typus in Herb. München). On granitic rock.

Areolae covering an area of 8 x 3 cm, partly contiguous, partly discrete, mostly 1 - 1,5 mm wide, about 0,4 mm thick, irregular in shape, partly sublobate, naked but a few areolae white pruinose, margins mostly appressed but not widely attached. - Thallus cortex 40 - 45  $\mu$  thick, most part nubilated, cells 2 (3)  $\mu$  wide. Algae 10 - 13  $\mu$  diam. in a dense, 50 - 100  $\mu$  thick stratum with even surface. Lower cortex 10 - 18  $\mu$ , black-brown, reaching far inwards.

Older apothecia apparently between the areolae and up to 1,4 mm wide, but most of them with distinct margin of the areola visible and about 0,5 mm wide, disc on a level with the surface of the areola, smooth, with a distinct, dark reddish shade, margin indistinct from the beginning, in free apothecia sometimes visible, thin. - Exciple 15 - 20  $\mu$  thick, refracting, I -. Hypothecium about 50  $\mu$  thick, greyish, I + dark blue. Thecium 100 - 110  $\mu$  high, I + green-blue: surface red-brown. Paraphyses 1,5 - 1,7  $\mu$ , tips slightly widened, 2-3  $\mu$ , in KOH brown-pale. Spores at least 100, 4-5 x 1,7  $\mu$ .

The new species belongs to the A. fuscata - group, but has larger, smoother areolae, larger apothecia with higher thecium than in fuscata. Its thecium is about as high as in peliocypha but the apothecia are solitary and larger, and the habitus differs from both these species.

Acarospora imbricatula H.Magn., spec.nov.

Thallus squamulosus, castaneo-fuscus, effusus, squamulae iuniores applanatae, areoliformes, subcontiguae, adultiores maiores, subimbricatae, incisae, superne laevigatae, opacae, omnes crassae, subtus pallidae et re-actionibus immutatae. Apothecia tantummodo iuniora, immersa, concava, ascis deficientibus. Cortex superior mediocris, translucidus, hyphis + perpendicularibus.

Italy, Southern Tyrol: "Vintschgau, S-seitige Trockenhänge am Eingange des Schlandersautales bei Schlanders", 1953 leg. J.POELT (Typus in Herb. München). On gneissose stone.

Thallus covering several cm square with contiguous to more or less imbricate squamules, 1 - 1,5 mm large, 0,5 - 0,7 mm thick, very irregular in shape, sometimes composed of several parts, with incised, usually free margins, sometimes slightly raised, mostly free from one another, umbilicate. - Cortex 20 - 30  $\mu$  thick, colourless with perpendicular strands of hyphae downwards, upper 7 - 10  $\mu$  pale yellow-brown, amorphous stratum 0 - 20  $\mu$  thick, + smooth. Cells 3,5 - 4  $\mu$  wide, perpendicularly arranged. Algal stratum 100  $\mu$  or more, dense, contiguous with shallow depressions below cortex. Medulla 200  $\mu$  thick or more, whitish from granules, dissolving in HNO<sub>3</sub>. Lower cortex + developed, pale, about 35  $\mu$  thick, its cells 5-7  $\mu$ .

Apothecial initials rare, deeply sunk, concolorous with the surface. One section 0,7 mm broad, 0,4 mm deep without distinct exciple. Thecium about 100  $\mu$  tall but limitation to underlying pale tissue diffuse, both I -. Paraphyses 2,5  $\mu$ , contiguous, also in KOH.

Judging from some details in structure the new species ought to be nearly related to A. cervina, but is quite distinct in the not pruinose thallus, the incised squamules with free edges etc.

Catillaria (Biatorina) areolata H.Magn., spec.nov.

Thallus subochraceus, spiphloeodes, rimoso-areolatus, determinatus, areolis minutis, subplanis, angulatis, reagentibus immutatis. Apothecia crebra, minuta, adpressa, disco atro plano, margine tenui, haud prominente. Excipulum distinctum, pallidum. Hypothecium incoloratum. Thecium tenue, superne caeruleo-nigricans, paraphysibus arcte contiguis. Sporae minutae, incoloratae, uniseptatae, ad septum constrictae.

Germany, Upper Bavaria: "Wettersteingebirge, geschützte Steilfläche in einem breiten Spalt an der Dreitorspitze unweit des Mittelgipfels + 2600 m. Auf Kalk mit endolithischen Verrucarien", 7.1953 leg. J.POELT (Typus in Herb. München).

Largest specimen 4 x 1 cm wide consisting of a few confluent individuals with thin, smooth edge where a narrow, whitish hypothallus sometimes is visible. Areolae very distinct toward the centre, 0,8 - 0,5 mm wide, 0,2 - 0,3 mm thick, separated by thin cracks which disappear toward the edge. Surface slightly uneven or convex.

Apothecia 0,3 - 0,45 mm wide upon or between the areolae, orbicular or more or less irregular, at first concave with thick margin, then plane with thinner but lasting margin. - Apothecia 0,2 mm high upon a thallus with its algal stratum inside continuous. Excipile about 40  $\mu$  thick at edge and laterally, inside very dark, paler and disappearing below. Hypothecium colourless, at centre to 35  $\mu$  thick. Thecium 50  $\mu$  high. I + dark blue: upper 15 - 20  $\mu$  gradually sordid blue-green. Paraphyses firmly contiguous, also in KOH, apices now partly 4-5  $\mu$  thick, blue-green or subviolet, in HNO<sub>3</sub> red-violet. Ascii 35 - 40 x 12  $\mu$ . Spores 9 - 10 x 5  $\mu$ , distinctly constricted at the septum.

The maincharacters of the new species are: the subochraceous, areolate, delimited thallus, the adnate apothecia, the blue-green epithecium and the constricted spores.

Pyxine hispanica H.Magn., spec.nov.

Thallus subfoliaceus, fuscocinereus vel fuscescens, crassus, lobatus, lobis brevibus, convexis, convolutis, sed marginalibus + applanatis, I -, KOH -, CaCl -, subtus pallidus, rhicinis pallidis munitis. Apothecia pauca, atra, convexa, immarginata, minuta. Excipulum laterale fuscoatrum. Hypothecium pallidum vel in centro fuscum. Thecium haud altum, superne viridiatrum, KOH -. Sporae octonae, uniseptatae, pallide olivaceo-virides.

Spain: "Sierra Nevada, Unweit der Straße auf den Pico de Veleta bei ± 1550 m, an Kalk", 1953 leg. J. POELT (Typus in Herb. München). Associated with Caloplaca cf. elegans and Acarospora cervina.

The specimen seen only 1,5 x 1 cm large forming a lobate crust, 1 - 1,5 mm thick, consisting of 2 - 3 mm broad, indistinctly limited lobes, the short marginal ones free from the substratum and with + visible, pale lower side bearing dense, pale rhizinae. The centre a maze of glebulae little resembling lobes, their top dark brown or blackish grey, the impressions faintly pruinose. - Lobulae 0,2 - 0,5 mm thick with diffuse not corticated underside. Upper cortex 20 - 25  $\mu$  thick or partly very thin, colourless with upper 5  $\mu$  green-brown, cells 2-4  $\mu$  diam., irregular and irregularly arranged. A diffuse amorphous stratum without continuous surface may be seen. Algal stratum 100  $\mu$  thick or more, algae yellow-green, often 15 - 20  $\mu$  large. Medulla + nubilated by

granules, dissolving in HNO<sub>3</sub>, hyphae now distinct, loosely intricate, 4-6  $\mu$  thick, rather thin-walled and long-celled. No lower cortex observed.

Apothecia to 0,5 mm broad, about two mm thick, disc on a level with the thallus, in one place five almost confluent, many initials apparently present. - Exciple laterally 50 - 35  $\mu$  thick, bluish-brown, open at centre. Hypothecium paler or darker brown, to 80  $\mu$  thick with diffuse limitation. Thecium 70 - 75  $\mu$  high, upper 12 - 15  $\mu$  green-black, in HNO<sub>3</sub> dark sordid green, mainly asci I + dark blue. Paraphyses simple, 1,7  $\mu$ , subdiscrete in KOH, apices 3,5  $\mu$ , brown-green. Spores 19 - 25 x 7 - 10  $\mu$ , wall and septum average thick, slightly uneven in thickness.

It has been difficult to place this curious species, partly resembling a *Buellia* species with thick thallus recalling certain *Diplojcia* species, but the occurrence of dense rhizinae under the loose lobes seems to speak for the genus *Pyxine*, although it differs both in appearance, structure and reactions. There is formerly only one species described from Europe, e.g. *P. saxicola* B.de Lesd. from France but it possesses a white thallus and smaller spores.

THE DEHN COLLECTIONS FROM  
SOUTHERN RHODESIA  
BY  
H. WILD (SALISBURY)

It was most interesting to see in the Mitt. Botan. Staatss. Muenchen, Heft 7, October 1953, the offer for sale of sets of Mrs. G. DEHN's plants from S. Rhodesia and it is hoped their distribution may stimulate interest in the Flora of Southern Rhodesia in herbaria and with taxonomists outside Africa. Professor SUESSENGUTH and I are agreed however that it would be as well to point out to students of the Rhodesian flora that Mrs. DEHN has unfortunately employed a numbering system that may cause some confusion, particularly in view of the fact that the collections contain a number of recently described species and also because the type concept is of such fundamental importance in modern taxonomy.

The original collections of Mrs. DEHN were elaborated and the new species described by Prof. Dr. K. SUESSENGUTH and Dr. H. MERXMUELLER in the Trans. Rhod. Sci. Assn. 43 (1951) in a paper entitled "A Contribution to